REMARKS

Claims 15, 18, 20, and 23 have been amended. Claims 16-17 and 21-22 have been cancelled. Claims 15, 18-20, and 23 are pending.

Claim 15 has been amended to include the limitations of claims 16 and 17, which have been canceled. Claim 20 has been amended to include the limitations of claims 21 and 22, which have been canceled. It is respectfully submitted that the amendments do not necessitate additional search since the amendments simply consolidate previously presented claims.

Disclaimers Relating to Claim Interpretation and Prosecution History Estoppel

Claims have been amended, and claims have been canceled, notwithstanding the belief that these claims were allowable. Except as specifically admitted below, no claim elements have been narrowed. Rather, cosmetic amendments have been made to the claims and to broaden them in view of the cited art. Claims 15, 18, 20, and 23 have been amended solely for the purpose of expediting the patent application process, and the amendments were not necessary for patentability.

Any reference herein to "the invention" is intended to refer to the specific claim or claims being addressed herein. The claims of this application are intended to stand on their own and are not to be read in light of the prosecution history of any related or unrelated patent or patent application. Furthermore, no arguments in any prosecution history relate to any claim in this application, except for arguments specifically directed to the claim.

Claim Rejections - 35 USC § 103

The Examiner rejected claims 15-23 under 35 USC § 103 as obvious from Kuroiwa (USP 6,246,650) in light of McKernan (US 2001/0046196).

Section 2143 of the MPEP states the basic requirements to establish the obviousness of a claim in light of one or more references, as follows:

> To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.
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> The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).
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> If the proposed modification would render the prior art invention being modified unsatisfactory for its intended purposes, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

It is respectfully submitted that independent claims 15 and 20 may not be properly rejected under 35 USC 103 as obvious from *Kuroiwa* in light of *McKernan* on the grounds that the Examiner has failed to make a *prima face* case of obviousness. Specifically, there is no suggestion or motivation to combine the references because the proposed modification would render *Kuroiwa* unsatisfactory for its intended purposes.

Kuroiwa describes an apparatus and method for controlling the rotational speed of a rotating disc as part of implementing a "electronic shock protect (ESP)" or "skip free" feature for a (presumably portable) media player. *Kuroiwa* describes that the data read from the rotating disc is loaded into a buffer memory that nominally contains 3 second of media content such that the data output to the user is nominally delayed by 3 seconds with respect to the reading of the disc. Thus, in the event of mechanical shock causing the disc read head to skip position, the data output to the user is not interrupted. In addition, in the event of errors in the data read from the disc, *Kuroiwa* describes that a retry may be performed without interrupting the data flow to the user.

In order to ensure that the buffer memory is kept full to the extent practical, *Kuroiwa* describes that the disc rotation speed, which is proportional to the disc reading speed, should be

controlled in normal operation based on the available space in the buffer memory. Specifically (see col. 14, line 65 to col. 14, line 27, and FIG. 10) *Kuroiwa* teaches that the disc speed may be twice the standard speed if the buffer memory is less than 80% full, 1.5 times the standard speed if the buffer memory is 80% to 90% full, and equal to the standard speed if the buffer memory is over 90% full.

Kuroiwa further teaches that the maximum disc rotation speed may be set based on a jitter measurement at the start of the disc reproducing method . As shown in FIG. 13 and FIG. 14, *Kuroiwa* teaches that the maximum disc rotation speed should be set to 2.0 times standard speed if the jitter measurement is less than a predetermined value and to 1.5 times standard speed if the jitter measurement is more than the predetermined value. Note that the method of FIG. 13 and FIG. 14 switches to a variable speed mode (based on the fullness of the buffer memory) at step F410 or F510 after the maximum rotational speed has been determined.

Kuroiwa further teaches that the maximum disc rotation speed may be reset based on a jitter measurement performed periodically. As shown in FIG. 16 and FIG. 17, *Kuroiwa* teaches that the maximum disc rotation speed should be set to 2.0 times standard speed if the jitter measurement is less than a value given in a table and to 1.5 times standard speed if the jitter measurement is more than the table value.

Finally, *Kuroiwa* teaches that the quality of the data read from the disc may be sacrificed in order to ensure that the buffer memory holds sufficient data to recover from track skips. Specifically, *Kuroiwa* teaches (see col. 9, line 60 to col. 10, line 21, FIGs. 6 and 7) that a frame check value of 5 should be used if the buffer memory is at least half full, which is believed to mean that a retry is executed if more than five consecutive frames of data have errors. However, if the buffer memory is less than half full, *Kuroiwa* teaches that a frame check value of forty should be used. Note that *Kuroiwa* does not teach reducing the disc rotation speed in response to a high error rate, but rather appears to teach maintaining a higher disc rotation speed to refill the buffer memory and accepting higher errors in order to preserve the "ESP" function.

McKernan describes an apparatus and method for controlling the rotational speed of a rotating disc based on an error rate level. Although *McKernan* states that this technique may be applicable to DVD drives, the teachings of *McKernan* appear to applicable primarily to CD-Rom drives. Specifically, *McKernan* describes [0028] that the disc rotational speed may be changed from 32x to 16x and then to 12x, all of which would be inappropriate when reproducing audio or video content from an optical storage medium. *McKernan* further describes a read operation that sets an initial rotational speed based on a function of one or more state variables. The radial position of the laser on the disc is given as an example of a state variable. After setting an initial rotational speed for a given track, the read operation is started and the rotational speed is set thereafter based on an error rate level. Although *McKernan* discusses the adverse effects of disc wobble and vibration on error rates, *McKernan* does not teach or suggest that the disc jitter, wobble, or vibration be measured and used to control the rotational speed.

Kuroiwa and *McKernan* teach different speed control apparatus and methods apparently intended to satisfy different objectives. *Kuroiwa* teaches that, while a maximum rotational speed may be set based on measured jitter, the actual rotational speed during reproduction should be set to maintain sufficient data in a buffer memory to preserve the "ESP" functionality. Moreover *Kuroiwa* teaches that data quality may be sacrificed if needed to maintain sufficient data in the buffer. In marked contrast, *McKernan* teaches that the disc rotational speed should be reduced in response to an error rate above a predetermined value.

Substituting McKernan's method for speed control during reproduction for Kuroiwa's method of speed control during reproduction, as proposed in the Office action, would render Kuriowa unsuitable for its intended purpose. Specifically, substituting McKernan's method for speed control during reproduction for Kuroiwa's method of speed control during reproduction would destroy Kuriowa's mechanism to ensure that the buffer memory contains sufficient data to allow recovery from track jumps. Since Kuroiwa, modified as proposed, would be unsuitable for its intended purpose, there can be no motivation to combine these references. It is respectfully

submitted that the Examiner has failed to make a prima face case of obviousness and the rejection should withdrawn.

It is respectfully submitted that independent claims 15 and 20 are allowable over the cited references, as are depending claims 18, 19, and 23.

Conclusion

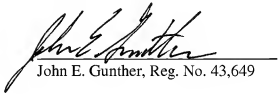
It is submitted, however, that the independent and dependent claims include other significant and substantial recitations which are not disclosed in the cited references. Thus, the claims are also patentable for additional reasons. However, for economy the additional grounds for patentability are not set forth here.

In view of all of the above, it is respectfully submitted that the present application is now in condition for allowance. Reconsideration and reexamination are respectfully requested and allowance at an early date is solicited.

The Examiner is invited to call the undersigned registered practitioner to answer any questions or to discuss steps necessary for placing the application in condition for allowance.

Respectfully submitted,

Date: June 20, 2007



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